Wester, Barbara

From: Pierard, Kevin
Sent: Tuesday, April 07, 2015 11:33 AM
To: Foss, Ann (MPCA)
Subject: Polymet NPDES Requirements
Attachments: 2015 04 07 NPDES MPCA Northmet email attachment.docx; NorthMet - Impact Criteria-Permittability Memo FINAL (062011).pdf

Hi Ann,

During our review of the proposed Polymet - Northmet (Northmet) project related documents and Environmental Impact Statement (EIS) drafts we had several conversations concerning EPA's comments relative to the Clean Water Act (CWA) and specifically to future National Pollutant Discharge Elimination System (NPDES) permitting for the proposed Northmet project. The Minnesota Pollution Control Agency (MPCA) requested that specific responses to our comments on NPDES related issues be deferred to the permitting phase of the project rather than during the EIS development phase. EPA accommodated that request. Since many decisions concerning NPDES were not specifically summarized in writing I thought it would be helpful to do so to assure shared understanding of the issues and documentation of decisions and approaches we agreed upon. Accordingly, I am writing this note to document our understanding of MPCA's anticipated approach to address proposed discharges of pollutants to waters of the United States through NPDES permitting, and to explain EPA's position regarding the applicability of NPDES permit requirements for point source discharges of pollutants to surface waters, including those that occur via subsurface flow. We note that because these issues were deferred to permitting during the process to develop the EIS, we do not anticipate that the information in the EIS will necessarily be sufficient to address the concerns we have enumerated, and we anticipate that MPCA will be working with Northmet to ensure the development of a sufficient record to support NPDES permit issuance.

Discharges are proposed for the Northmet site which require NPDES permit coverage in order to be in compliance with the CWA. The project proponent has a duty to submit an NPDES permit application to seek coverage for all proposed pollutant discharges, so that the permit can be in place when the proposed pollutant discharges occur. The MPCA is responsible for issuing an NPDES permit, where appropriate, that contains conditions and limits which assure compliance with all applicable requirements of the CWA and regulations, including limitations controlling all pollutants which are determined to cause or have reasonable potential to cause or contribute to an excursion from any state WQS. The enclosure highlights the more significant issues that we have identified to date for this facility and that must be addressed during the NPDES permitting process.

Although we have spoken many times regarding these concerns please let me know if you have any questions or would like to discuss further. In addition, we look forward to working with you to assure timely decisions on new and expired mining permits consistent with our joint priority.

Please see the attachment for some more information on the NPDES applicability to the Northmet project.

Pollutant Discharges from Point Sources

EPA has consistently interpreted the Clean Water Act (CWA) to apply to discharges of pollutants from a point source to surface water, including those that occur via hydrologically connected ground water.[1] The CWA defines point sources as follows:

> The term 'point source' means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

The need for an NPDES permit is highly dependent on the facts surrounding each situation. 66 *Fed. Reg.* at 3015; 63 *Fed. Reg.* at 7881. As EPA has explained:

> The determination of whether a particular discharge to surface waters via ground water which has a direct hydrologic connection is a discharge which is prohibited without an NPDES permit is a factual inquiry, like all point source determinations. The time and distance by which a point source discharge is connected to surface waters via hydrologically connected [ground] waters will be affected by many site specific factors, such as geology, flow, and slope. . . 66 *Fed. Reg.* at 3017.

Mine Site

MPCA does not anticipate that NPDES permit coverage would be required prior to mine construction and commencement of operations for proposed pollutant discharges to surface waters that will occur via subsurface flow or hydrologically connected groundwater. MPCA has indicated that it would initiate NPDES permit coverage for the mine site when "a point source water discharge adds pollutants to waters of the U.S."[2]. It is unclear what MPCA would use to determine this criteria is met, which is why we are providing the definition of point source here, as well as the clarification on discharges that occur via subsurface flow or hydrologically connected groundwater that EPA provided in the aforementioned federal register notice.

The MPCA cites as rationale for its approach modeled projections of flow and magnitude of the potential pollutant load as represented in the SDEIS and which suggest that it could take up to 17 years after the commencement of mining for pollutants to reach the Partridge River. See SDEIS Table 5.2.2-26. The EPA's comments on the SDEIS dated March 13, 2014, describe our concerns regarding both the reliance on the modeling approach and that the Partridge River is not the first receiving water of mine site discharges. We understand that the model expressly assumes no discharge to wetlands located between the mine site and the Partridge River. We note that as a result of this assumption, the travel times predicted in the SDEIS and in recently

[1] See, Proposed National Pollutant Discharge Elimination System Regulations for Concentrated Animal Feeding Operations, 66 *Fed. Reg.* 2960, 3015 (Jan. 12, 2001); NPDES General Permits for Storm Water Discharges from Construction Activities, 63 *Fed. Reg.* 7,858, 7,881 (Feb. 17. 1998).

[2] Draft PFEIS language, Section 5.2.2.3.6 Monitoring

updated reference documents (updated in support of preparation of the Final EIS)[3] estimate that pollutants will begin to arrive at the Partridge River 17-34 years from the beginning of the project. Since the model predictions are based on the pollutants traveling the entire distance between the mine site and the Partridge River via a subsurface flow path, we note that pollutants may reach surface waters sooner than predicted in either or both of two ways. First, pollutants may be discharged to wetlands in close proximity to the mine site, a potential that is not considered by the modeling work that supported EIS development. Second, pollutants from discharges may reach the Partridge River evaluation locations sooner than predicted because the path pollutants travel to those locations may not be entirely in the subsurface. During our discussions MPCA confirmed their understanding that the wetlands associated with the Partridge River and the tributaries to the Partridge River are waters of the U.S. and may be the first waters receiving pollutants from mine site features.

We understand that MPCA is expecting to apply State Disposal System (SDS) permit coverage for the mine site that may include monitoring requirements. The MPCA plans to evaluate monitoring results and then expects to apply NPDES permitting authorities to the mine site if and when a discharge of pollutants to surface waters is either detected or determined to be imminent. A complete NPDES permit application must include information detailing when and where pollutants originating from mine site activities and features will enter surface waters (40 CFR §§ 122.21 and 124.3). We understand that MPCA plans to use monitoring required under the SDS program to track the progress of pollutants toward surface waters, and then would modify the existing permit to include NPDES requirements to pollutant discharges that will soon reach or have already reached surface waters. MPCA has not made clear how it intends to structure the SDS permit to assure sufficiently timely detection of potential to discharge and initiation of the NPDES process. As MPCA moves forward in development and issuance of the SDS permit we would encourage you to consider these concerns in order to provide time to take the necessary steps that may avoid noncompliance by the permittee.

An NPDES permit for discharges of pollutants will need to include numeric and/or narrative effluent limitations necessary to protect water quality standards of the receiving waters, as well as any limitations necessary to ensure that downstream water quality standards are protected. 40 CFR § 122.44(d). The facility must be able to meet standards at the time of permit issuance, as no time to comply with standards can be granted to Northmet through an NPDES permit. As a "new source" as that term is defined in 40 CFR § 122.2, the mine site is subject to New Source Performance Standards (40 CFR 440) which pertain to quantity and quality of water that can be discharged. New sources generally are not eligible for schedules of compliance or variances from water quality standards. 40 CFR § 122.47, and 40 CFR 132 Appendix F.

Under federal regulations at 40 CFR § 122.21(a)(1), "Duty to apply," "any person who discharges or proposes to discharge pollutants … and who does not have an effective permit … must submit a complete application to the Director in accordance with this section and part 124 of this chapter." The time to apply (40 CFR § 122.21(c)) is no less than 180 days prior to the commencement of discharge. However, it can take longer than 180 days to draft and issue a

[3] Water Modeling Data Package Volume 1 – Mine Site. Version 13. December 29, 2014. Prepared for PolyMet Mining Inc. by Barr Engineering Co.

permit and simply applying for a permit does not provide the coverage needed to authorize discharges of pollutants to surface waters under the CWA.

If permit coverage for identified pollutant discharges is not received prior to pollutants reaching surface waters, then the company will be discharging without a permit in violation of the CWA. Note that there is no minimum threshold of predicted pollutant load needed to trigger the requirement to submit a permit application.[4]

Plant Site (Tailings Basin)

In a June 20, 2011 Memo ("Memo"), MPCA outlined criteria it would review in assessing "permittability" of the tailings basin, which included that the groundwater seepage from the tailings basin would not exceed 500 gallons/acre/day, which MPCA notes is "equivalent to an engineered lined system with respect to release of seepage to groundwater."[5] For a source as large as the tailings basin for the proposed Northmet facility, this would translate into seepage potentially in excess of about 2 million gallons/day.

The MPCA Memo appears to identify 500 gallons/acre/day as a threshold flow below which a facility would not be subject to NPDES requirements. Although the Memo did not address the hydrologic connection between groundwater and surface water flow at the site, the Memo states that "'excess' wastewater from the tailings basin [that discharges to the Embarrass River] during facility operations must meet effluent limitations based on the 10 mg/L wild rice sulfate surface water quality standard." Memo at page 2. The Memo further explains that to evaluate permit coverage for the facility, MPCA will "seek evidence the facility will not have a statistically significant impact on sulfate in receiving waters. . . groundwater quality standards can be met at the facility property boundary, [and] all applicable surface water quality standards can be met in surface waters at the facility," among other factors.

The CWA does not include exemptions that would limit NPDES permit coverage to only "excess" wastewater discharges that are deemed to have a "statistically significant" impact on receiving waters at property boundaries. There is no exclusion or exemption for discharges from facilities based on technology or engineering controls. See 40 CFR 122.44(d). Failure to obtain NPDES coverage for discharges of pollutants to waters of the United States would place the discharger at risk of violating the CWA. We had many discussion with MPCA and the permittee on this point and believed this was understood and agreed to by the parties some time ago.

Transfer of tailings basin permits

On July 1, 2013, EPA received a "Draft Outline for Additional Information on Permitting in SDEIS," from MPCA, which indicated that the tailings basin permit(s) would be revised and transferred should Polymet take over operation of the tailings basin. Federal regulations

4 The contents of a complete permit application are described in 40 CFR § 124.3 and for new industrial sources at §§ 122.21(f), and (k). Included in the permit application requirements are requirements to identify the location of the outfall, the receiving water, and the flows and sources of the discharges, a line drawing that includes a water balance, and effluent characteristics. Effluent characteristics includes a listing of the pollutants expected to be present in the discharge, and their projected amounts, and provide the source of the information (basis for why the applicant believes the projected amounts to be representative).
5 Memo from Ann Foss, MPCA, to Bill Johnson, MDNR, "Minnesota Pollution Control Agency Staff Recommendations on Impact Criteria Related to the Permittability of the Proposed PolyMet Tailings Basin," June 20, 2011.

regarding permit transfers are found at 40 CFR § 122.61. The Plant site currently includes the non-operational iron ore processing facility and the tailings basin which does not currently accept tailings. Polymet's reuse of this site would result in significant changes including types of ore processed, changes in discharge water quantity and quality, additional discharge locations, a reconfiguration of how water is managed, and additional waste management areas such as the proposed hydrometallurgical disposal facility. Substantial modifications such as these are not "minor modifications," as that term is defined in the federal regulations (see 40 CFR § 122.63), rather these are modifications that would require a major modification or revocation and reissuance of the permit(s), as provided in 40 CFR § 122.62.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

NOV 03 2016

REPLY TO THE ATTENTION OF:
WN-16J

Ms. Ann Foss
Metallic Mining Sector Director
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155-4194

Re: NPDES Permit Application for Polymet Mining Corporation's Northmet Mine

Dear Ms. Foss:

On July 11, 2016, Polymet Mining Corporation (Polymet) submitted an application for a National Pollutant Discharge Elimination System and State Disposal System (NPDES/SDS) permit to the Minnesota Pollution Control Agency (MPCA) for discharges related to the proposed Northmet project ("Application"). The U.S. Environmental Protection Agency obtained the Application via the MPCA's website. On August 2, 2016 MPCA informed Polymet that the application is complete for processing but also indicated that MPCA may have additional information requests as MPCA further processes the application. EPA appreciates the significant effort that went into MPCA's review of this application, and we hope you find this letter useful as you continue to review and process the application materials submitted by Polymet.

As you know, Section II of The Memorandum of Agreement (MOA) between MPCA and EPA describes the process by which EPA reviews NPDES permit applications that have been submitted to the MPCA. The MOA states that:

> If the EPA determines that the NPDES application form is not complete the deficiencies shall be identified by letter to the Director. No NPDES application shall be processed by the Agency until the deficiencies are corrected and it has been advised in writing by the EPA that the NPDES application form is complete. *MOA, Part. II, Section 124.23 Transmission of Data to Regional Administrator, Paragraph 1.*

Consistent with the MOA, EPA has conducted a focused review of the application materials for that portion related to the NPDES coverage sought for the proposed Northmet project, specifically the information submitted on and referenced in the EPA Form 3510-2D (Rev.8-90) for new industrial discharges. The enclosure to this letter describes the deficiencies[1] EPA has found regarding the application materials and identifies additional concerns raised by the application materials, including:

[1] We use the term "deficiencies" because that is the term used in the MOA. We interpret "deficiencies" to refer to omissions, inconsistencies, mistakes, and other circumstances where we believe the information provided by the applicant is not responsive to the directions given on the application form. As used in the MOA, the term does not refer to any deficiencies in MPCA's application review process.

- Antidegradation requirements, and
- Federal effluent limitations guidelines as they pertain to the proposed Northmet project.

In addition, EPA notes that although: 1) the Final Environmental Impact Statement (FEIS) for the Northmet project details discharges to surface waters predicted to occur at the mine site[2]; and 2) the permit application contains numerous references to the FEIS[3], the applicant specifically does not request NPDES permit coverage for these discharges[4].

EPA's position, as we explained previously during the development of the FEIS, is that the incorporation of the FEIS into the Application without ensuring that NPDES permit coverage is fully consistent with the information presented in the FEIS could create potential enforcement and permit shield issues under Section 402(k) of the Clean Water Act (CWA). If the application is not revised to either request NPDES permit coverage for the specific discharges proposed in the FEIS or to remove all references to the FEIS and supporting documentation, then any draft permit must include a prohibition on discharges from mine site point sources to surface waters, including those discharges that occur via a direct hydrologic connection, as documented in the FEIS.

EPA's position as explained above is consistent with EPA's past interpretation that the CWA applies to discharges of pollutants from a point source to waters of the United States, including those made through a ground water hydrologic connection.[5] The CWA defines point sources as follows:

> The term 'point source' means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural stormwater discharges and return flows from irrigated agriculture. *33 U.S.C 1362(14)*

The need for an NPDES permit is highly dependent on the facts surrounding each situation. 66 *Fed. Reg.* at 3015; 63 *Fed. Reg.* at 7881. As EPA has explained:

> The determination of whether a particular discharge to surface waters via ground water which has a direct hydrologic connection is a discharge which is prohibited without an NPDES permit is a factual inquiry, like all point source determinations. The time and distance by which a point source discharge is connected to surface waters via hydrologically connected [ground] waters will be affected by many site specific factors, such as geology, flow, and slope. . . 66 *Fed. Reg.* at 3017.

Finally, we emphasize that it is important that the content of the application be fully documented and that the record before the permitting Agency be complete and transparent. As MPCA continues to receive supplemental information from the applicant (including, any materials provided by the

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[2] For example, Page 5-35, Figure 5.2.2-7, Table 5.2.2-8, of the FEIS.

[3] Including references to the project description, modeling results, monitoring data, effluent, ambient and downstream water quality predictions, and including predicted point source discharges to surface waters from the mine site including Figure 5.2.2-7 of the FEIS.

[4] Application, Vol. 1, Chap. 2.0 states that, "The Mine Site will not discharge mine water or process water to surface waters from a point source; therefore, no NPDES permit is required and only SDS coverage is requested."

[5] See, Proposed National Pollutant Discharge Elimination System Regulations for Concentrated Animal Feeding Operations, 66 *Fed. Reg.* 2960, 3015 (Jan. 12, 2001); NPDES General Permits for Storm Water Discharges from Construction Activities, 63 *Fed. Reg.* 7,858, 7,881 (Feb. 17. 1998).

applicant to MPCA after July 11), we strongly recommend that this information be added to the permitting record and be made available to the public and to EPA in a timely manner.

Again, we appreciate MPCA's efforts in reviewing the Polymet application and we look forward to working with you to resolve the issues identified in this review as MPCA moves forward to draft the NPDES permit for this proposed facility. We will conduct a formal review of any draft permit that MPCA proposes to issue consistent with our MOA. Please contact me or Krista McKim of my staff at (312) 353-8270 or mckim.krista@epa.gov with any technical questions. For legal questions please contact Barbara Wester of the Office of Regional Council at (312) 353-8514 or wester.barbara@epa.gov.

Sincerely

Kevin M. Pierard, Chief
NPDES Programs Branch

Enclosure

U.S. EPA's Review of the Polymet – Northmet
NPDES permit application to MPCA

This enclosure presents issues identified in EPA's October 2016 focused review of the Northmet NPDES/SDS permit application. EPA looks forward to working with MPCA to obtain additional information and/or clarification to fully address these issues prior to MPCA's proposal of a draft permit for the project, consistent with the MOA.

Deficiencies Found EPA's Review of Form 2D

The deficiencies[1] identified below are organized by referencing the specific Item number or Part in "EPA Form 3510-2D (Rev. 8-90)." The Applicant submitted this form as part of its application. Unless otherwise stated, when referring to the application instructions, EPA is referring to the specific instructions for each Item or Part identified in the above-referenced form. The information requested through this form is based on the federal requirements found in 40 C.F.R. Part 122.

Item I. The applicant has provided locational information for three outfalls, SD002, SD003 and SD004. Latitude and longitude coordinates are provided for each. However, for SD003, the applicant has indicated that the "coordinates represent the average of six surface water discharge outfalls". This is not an appropriate manner for describing the outfall locations. The application should describe each outfall and its actual location. In addition, when the application is revised to include all six proposed discharge locations, please be sure to name the immediate receiving water for each outfall. In some cases, the immediate receiving water may be wetlands.

In addition, we noticed that the application materials contain conflicting or inconsistent information in some places. For example, the locations given for SD002, SD003 and SD004 elsewhere in Volume I are inconsistent with the information on the Federal form. We did not attempt to identify every instance where the applicant provided locational information for the outfalls but the applicant should ensure correct information regarding the outfall locations throughout the application.

It is important to resolve this issue with the applicant as incorrect or inconsistent locational information could result in (1) confusion for regulators and the public regarding where discharges will occur; (2) failure to identify appropriate water quality standards for the receiving waters; and (3) inability to enforce discharge limits in a final permit.

Item III-A. The application instructions require the applicant to list the average flow contributed by each outfall. For SD003 2,400 gallons per minute [gpm] is given. In providing information regarding each specific outfall location, the applicant should update this section to include an estimated average flow rate for each outfall. At this time, it is unclear if 2,400 is meant as an average flow for the 6 outfalls or a total. The applicant should provide any needed recalculations at this time as well.

It is important to provide detailed flow information because it is needed to ensure that the permit includes limits necessary to meet applicable water quality standards. Additionally, this information is needed to provide an estimate, along with the expected pollutant concentrations, of pollutant loading to

[1] We use the term "deficiencies" because that is the term used in the MOA. We interpret "deficiencies" to refer to omissions, inconsistencies, mistakes, and other circumstances where the information provided by the applicant is not responsive to the directions given on the application form. As used in the MOA, the term does not refer to any deficiencies in MPCA's application review process.

the receiving waters, and to inform decisions the permitting authority needs to make regarding implementation of federal regulations for new source performance standards.

Item III-B. The application instructions require a line drawing

> … depicting the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent, and treatment units labeled to correspond to the more detailed descriptions in Item III-A. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

For this requirement, the applicant referenced "Large Figures" 2 and 3 in Volume III of the application as the response to this item. We believe the information provided in the applicant's line drawings as depicted in these two figures is incomplete in the following respects:

- Source of water was not provided.
- Each operation contributing wastewater was not provided or identified.
- Estimation of flow – The application depicts "Average P90 Flows". However, the applicant should clarify whether this represents the average flow rate that is expected.
- Flow diagrams do not depict the complete route taken by water from intake to discharge as required by the instructions. Figures 2 and 3 taken together are limited to only the route taken by water through the Wastewater Treatment Facility and the Wastewater Treatment Plant. The applicant should clarify and revise the line drawing as necessary to depict the route taken by water through the entire facility.
- The diagrams do not identify receiving waters. Figure 2 and 3 provide as endpoints "Stabilized effluent for discharge or potential reuse …" or "final effluent". The specific discharge location and receiving waters should be specifically identified.

A revised line drawing is needed to address these issues. We note that several other water flow diagrams were included in the application materials, but we did not locate any figure that contains the necessary information described above. If the applicant wishes to reference a different water flow diagram in Form 2D (and which does address all of the above information), please provide the specific reference to that flow diagram (and the form should be updated accordingly). In addition, if water management is expected to change over the course of the entire project, we recommend that the applicant submit line drawings to represent each project phase, as necessary, to illustrate how water will be managed throughout the lifetime of the project.

The complete flow diagram is needed for many parts of the application. This information assists the permitting authority and the public to understand the processes of the facility's operations and the nature of all of the materials with which the water will be in contact, including any additives. This information also assists in describing the extent to which wastewater streams may be mingled with each other and the extent to which water is reused in the facility's process(es).

The permitting authority will need this information to ensure appropriate limits and conditions are included in the permit, including the implementation of federal new source performance standards.

Item V. Effluent Characteristics. The application instructions require the applicant to report levels of pollutants as concentration and as total mass for each outfall for certain pollutants, and for others only if they are believed to be present in the discharge. The applicant has submitted data for several parameters, but only concentration data have been submitted, and only one result, not one result for each outfall, is reported. The data must also be expressed as a total mass, or pollutant load. It is unclear to which outfall the data applies as no outfall number is provided. Additionally, "Year 10" has been stamped onto the form. The significance of providing data for "Year 10", is not explained nor is it sufficient for permitting purposes to rely on information provided for one year whose significance is not explained. We recommend that if the character of the effluent is expected to change with time and or phase of the project that the applicant provide sufficient information so that each phase of the project is represented.

Additionally, the applicant has listed what appear to be incomplete references in the space provided to identify the sources of information used to derive the effluent quality information provided on the Form. We understand that these sources may be shortened titles for documents listed in a separate collection of support documents submitted by the applicant, but we are unsure where to find the information or if it is available for public review. The specific documents and locations within those documents where the information can be located must be provided. Please ensure that these materials become part of the permit record and are made available for public review in a timely manner.

It is important to make sure that this issue is resolved with the applicant so as to provide a transparent means of verifying the source of information that was used to provide the estimates, as well as to document the basis the permitting authority will use to develop permit requirements.

Item VI. Engineering Report on Wastewater Treatment.
A. reference is made to "Waste Water Treatment System: Design and Operation Report". We did not find this report attached to the application. It is listed in the references section of the application with an indication that it was estimated to be submitted in July 2016. The applicant should revise the application and MPCA should ensure that this report is timely available to the public for review along with the rest of the application materials in a timely manner.

B. the location of existing plants does not need to be limited to plants located in the State of Minnesota. This section could be expanded to include information from similar operations regardless of their location. This information is normally used by the permit issuing authority to assess the applicant's information in relation to similarly situated facilities that may be discharging wastewater that is similar to the proposed discharge(s) in order to ensure adequate characterization of anticipated future loadings.

Antidegradation.

We are concerned that the antidegradation analysis submitted with the application materials pertains only to the plant site. As the mine site would be constructed as part of the same project for which the discharges from the plant site are proposed, and as there will be discharges from the mine site to Waters of the U.S., we would like to discuss with you the scope and timing of the antidegradation analysis that includes the construction of the mine site. After further analysis of the issue, EPA will provide additional comments on this matter including whether the lack of such information is a deficiency in the application.

New Source Performance Standards.

Federal regulations at 40 C.F.R. § 440 include restrictions on discharges from mills that use froth-floatation for beneficiation of copper and other ores. No discharge is allowed to occur from such process with the following exception:

> In the event that the annual precipitation falling on the treatment facility and the drainage area contributing surface runoff to the treatment facility exceeds the annual evaporation, a volume of water equal to the difference between annual precipitation falling on the treatment facility and the drainage area contributing surface runoff to the treatment facility and annual evaporation may be discharged subject to the limitations set forth in paragraph (a) of this section. *40 C.F.R. § 440.104(b)(2)(i)*

Appendix D of Volume I of the application contains a lengthy discussion on this "zero discharge" requirement and how the proposed project might comply with it. In addition, MPCA has recently raised questions to EPA as to how to apply this requirement in the permit. We believe that a complete water flow diagram or diagrams, as required by Item III-B of the application and discussed above, will help illustrate the water management proposed for the facility and, therefore, highlight how the discharge would or would not be in compliance with the requirements at 40 C.F.R. § 440. From what we understand, the Northmet operation will manage water pumped from the mine pits, process water, and precipitation falling on the facility. The process water that will be discharged will be comingled with water pumped from the mine pits and the precipitation falling on the facility, which together will be treated before it is discharged, subject to applicable standards. In this case, we believe it may be appropriate to apply the exemption to the zero discharge requirement, and that the facility may discharge a volume of water equal to the difference between annual precipitation and annual evaporation subject to the standards provided in 40 C.F.R. § 440.104(a). EPA notes that 40 C.F.R. § 440.132(b) provides:

> "Annual precipitation" and "annual evaporation" are the mean annual precipitation and mean annual lake evaporation, respectively, as established by the U.S. Department of Commerce, Environmental Science Services Administration, Environmental Data Services or equivalent regional rainfall and evaporation data.

In regard to the multi-year approach proposed by the applicant in Appendix D, Volume I, we disagree that the regulations in 40 C.F.R. § 440 do not include a timeframe for calculating the allowable discharge or evaluating the actual discharge. The regulations repeatedly utilize the word annual. While the term "annual" is not specifically defined in the regulations, it is defined in several other commonly used sources including the Miriam-Webster Dictionary as "covering the period of a year", and there is no basis on which to interpret EPA's intended use of the word annual to mean anything other than "covering a period of a year".

We are available to discuss the details of how to implement 40 C.F.R. § 440 with you after the revised application materials are submitted to the MPCA and as you move forward to draft permit conditions that implement 40 C.F.R. § 440.

Subject: FW: Polymet

Date: Monday, November 20, 2017 at 12:58:55 PM Central Standard Time

From: Flood, Rebecca (MPCA) (sent by FYDIBOHF23SPDLT </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP /CN=RECIPIENTS/CN=F090CE0B00DE4CD4BA146A1C9722F4CA-RFLOOD>)

To: Foss.mpca, Ann (MPCA), Schmidt, Michael R (MPCA)

FYI

From: Korleski, Christopher [mailto:korleski.christopher@epa.gov]
Sent: Monday, November 20, 2017 12:39 PM
To: Flood, Rebecca (MPCA)
Cc: Kaplan, Robert ; Holst, Linda ; Pierard, Kevin
Subject: Polymet

H Rebecca:

I wanted to get back to you on the Polymet issue we discussed and let you know that we accept your proposal of MPCA providing us with a draft of the permit at the same time you provide it to impacted tribes. That will give EPA approximately 45 days to comment on the draft permit. In light of MPCA's provision of the draft permit, EPA will not be providing any comments until after we have a chance to review the draft.

Thanks.

Chris

Chris Korleski
Director, Water Division, Region 5
U.S. Environmental Protection Agency
77 W. Jackson Blvd. (W-15J)
Chicago, IL 60604
312 886-1432 (Liz Rosado, Assistant)
312 353-5498 (General Office Number)
korleski.christopher@epa.gov

Subject: RE: Polymet Draft Permit Discussion
Date: Friday, March 16, 2018 at 2:39:32 PM Central Daylight Time
From: Udd, Jeff (MPCA) (sent by FYDIBOHF23SPDLT </O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP /CN=RECIPIENTS/CN=E2EA3D7349CD4899865CE8C41466294E-JUDD>)
To: Clark, Richard (MPCA), Handeland, Stephanie (MPCA)

And I just got off the phone with Kevin. He would like to continue with the routine check-in meetings every few weeks as we go through the comments and any permit revisions. He would like to have one the first week of April to walk through what the comment letter would have said if it were sent.....

From: Udd, Jeff (MPCA)
Sent: Friday, March 16, 2018 2:06 PM
To: Clark, Richard (MPCA) <richard.clark@state.mn.us>; Handeland, Stephanie (MPCA) <stephanie.handeland@state.mn.us>
Subject: FW: Polymet Draft Permit Discussion

Here's the plan.....

From: Lotthammer, Shannon (MPCA)
Sent: Friday, March 16, 2018 2:00 PM
To: Thiede, Kurt <thiede.kurt@epa.gov>
Cc: Korleski, Christopher <korleski.christopher@epa.gov>; Pierard, Kevin <pierard.kevin@epa.gov>; Nelson, Leverett <nelson.leverett@epa.gov>; Holst, Linda <holst.linda@epa.gov>; Stepp, Cathy <stepp.cathy@epa.gov>; Stine, John (MPCA) <john.stine@state.mn.us>; Smith, Jeff J (MPCA) <jeff.j.smith@state.mn.us>; Udd, Jeff (MPCA) <jeff.udd@state.mn.us>; Schmidt, Michael R (MPCA) <michael.r.schmidt@state.mn.us>
Subject: RE: Polymet Draft Permit Discussion

Hi Kurt –

Thank you for your message. We concur with your characterization below of what we have agreed to for the Polymet draft permit next steps.

Thank you also for your demonstrated commitment to continued dialogue and cooperation, which we share. I have made a note of the suggestion for a face-to-face meeting, and will work with our team to determine when we've reached a good point to get that set up. In the meantime, if you have any questions, please let me know.

Kind regards,
Shannon

Shannon Lotthammer
Assistant Commissioner
Minnesota Pollution Control Agency
Shannon.lotthammer@state.mn.us
651/757-2537

Working to protect and improve the environment and human health.

From: Thiede, Kurt [mailto:thiede.kurt@epa.gov]
Sent: Friday, March 16, 2018 12:44 PM
To: Lotthammer, Shannon (MPCA) <shannon.lotthammer@state.mn.us>
Cc: Korleski, Christopher <korleski.christopher@epa.gov>; Pierard, Kevin <pierard.kevin@epa.gov>; Nelson, Leverett <nelson.leverett@epa.gov>; Holst, Linda <holst.linda@epa.gov>; Stepp, Cathy <stepp.cathy@epa.gov>
Subject: Polymet Draft Permit Discussion

Shannon,

Thanks once again for working with us to find a solution to this matter. Here is our understanding of what EPA and MPCA have agreed to.

Once MPCA completes their response to public comments, it will develop a pre-proposed permit (PPP) and provide the PPP to EPA Region 5. Region 5 EPA will have up to 45 days to review the PPP and MPCA's responses to public comments and provide written comments on the PPP to MPCA. This would occur prior to MPCA submitting a proposed permit to EPA, which, according to the current MOA, would continue to give EPA 15 days to comment upon, generally object to, or make recommendations with respect to the proposed permit. In accordance with the current MOA and as specified in CWA Section 402(d)(2)(B) and 40 C.F.R. 123.44(b)(2), EPA still may raise specific objections within the 90 day period from receipt of the "final" proposed permit, but we are hopeful our discussions and the additional review will allow us to come to an agreement and avoid objections.

Again, it is our hope and intent to continue a dialog between MPCA staff and R5 EPA WD staff prior to receipt of the PPP and during EPA's review of the PPP as we work toward a NPDES permit that both parties

can support. In fact, I would like to suggest setting up a face-to-face meeting when appropriate to discuss the draft permit and EPA observations. It is also our intent to turn around our review and comments on the PPP as soon as possible.

Please let me know if you have any questions.

Sincerely,

Kurt A. Thiede
Chief of Staff
U.S. EPA, Region 5
Office of the Regional Administrator
77 W Jackson Blvd
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Office: (312) 886-6620

Subject: MPCA sends PolyMet revised permit documents for EPA review
Date: Thursday, October 25, 2018 at 11:22:31 AM Pacific Daylight Time
From: Polymet Permitting
To: michael.r.schmidt@state.mn.us

MPCA sends PolyMet revised draft permit documents for EPA review

In response to comments received during the public notice period (January 30 to March 16, 2018), the Minnesota Pollution Control Agency (MPCA) revised the draft air quality and water quality permit documents for the Poly Met Mining, Inc., (PolyMet) NorthMet mining project. The revised air and water quality permits and support documents were sent to the Environmental Protection Agency (EPA) for review on October 25.

This is not a final decision of the MPCA, nor is this a public comment period. Sending the revised draft permits to EPA is a normal step in the air and water permitting process as part of the federal oversight of the state permitting programs. In the interest of ensuring transparency for this high-interest project, MPCA is taking the additional step of posting the revised permits on-line. You can find the permits on the MPCA's NorthMet project pages at www.pca.state.mn.us/northmet.

The 401 certification is not required to be provided to EPA for a final review prior to MPCA making a decision on the certification. It is on a different schedule and therefore not being posted on MPCA's NorthMet project webpage at this time.

The MPCA considered the nearly 700 public comments, which resulted in the addition of numerous conditions to the permits. For example, the MPCA revised the draft air permit provisions to clarify conditions for fugitive dust control management and recordkeeping, and add monitoring and recordkeeping requirements. Examples of changes made to the draft water quality permit as a result of comments include adding additional permit limits and providing greater clarity on requirements related to the construction and operation of engineering controls (such as seepage capture and wastewater treatment systems).

Next Steps

The EPA will be reviewing the permits in the coming weeks. Following consideration of any feedback provided by EPA during this review, the MPCA Commissioner will make a decision on issuance of the permits. The intent of the MPCA is to make final permit decisions by the end of this calendar year.

Additional Information

As noted above, the permits are not open for public comment. This notification is intended to serve only as a progress report on the current status of the MPCA air quality and water quality permits.

For the most up to date information, check the state's PolyMet web portal and MPCA's project website.

You are receiving this message as a subscriber to the PolyMet email notification list. This list is hosted by the Department of Natural Resources (DNR). It is used jointly by MPCA and DNR to provide regular updates and share information about key steps in the permitting/certification processes.

Minnesota Pollution Control Agency [Contact us]

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